

Realising Energy Democracy:

Observations from Dutch and Irish Energy Communities

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I. Introduction

Background

In the context of climate change and energy crisis, the energy transition is a process in which certain challenges are inevitably confronted, but also in which certain opportunities also arise. With the adoption of renewable energy technologies, new types of energy governance can be tested (Van Veelen, 2018).

Energy pervades almost all aspects of society and can be considered one of, if not the most, fundamental scarcity in any economy (Hall, 2017). The structure of energy governance can therefore bear a significant impact over society's functioning at every scale; not only affecting economic and geo-political dynamics, but also forming the basis for social and political relations generally (Van Veelen, 2018).

Energy Democracy (ED) is a concept which recognises the energy transition as a necessary response to aforementioned crises, and in this sees a chance to transition away from the centralised and monopolistic structures of governance that are currently dominate (Burke & Stephens, 2017; Van Veelen, 2018; van Veelen & van der Horst, 2018). Unlike fossil fuels or nuclear energy, renewable energy lends itself to decentralised production and therefore creates the opportunity for projects to be governed locally. As such, ED is posited as a potential means of restructuring sociotechnical regimes (Burke & Stephens, 2017).

Yet the academic literature on energy democracy is fractured in terms of specific vision or definition (Szulecki, 2018; Welton, 2018); it is not determined what energy democracy could or should be. The concern is thus that the potential for energy democracy may be missed out on if the energy transition is allowed to pass by without the academic field arriving at a clear determination of what it is, and importantly, how it can be applied in policy and practice (Burke & Stephens, 2017). As such, there is a desire for research on ED in practical situations (van Veelen & van der Horst, 2018), so as to contribute materiality to the currently highly theoretical and sometimes utopian array of definitions.

Energy community (EC) is one such context in which it is speculated that early forms of energy ED may be found. Though not a panacea, the local scale is considered appropriate for ED to be applied and community energy is thought to be an ideal alternative to current energy governance systems (Van Veelen, 2018). ECs have therefore been selected as the case for this study, and a definition of community based energy democracy (CBED) is proposed accordingly.

The Netherlands and Ireland were selected as geographical contexts for this investigation which contributes other elements to the research. Firstly, this setup enables a comparison of energy democracy in energy communities between the two contexts. Secondly, this comparison can assist with current queries regarding the context dependency of ED (Feldpausch-Parker et al., 2019). Following the latter point, the study aims to go further than contributing mere content to a definition but also wishes provide perspective for the future process of definition seeking, with

context dependency in mind. This is to say that while certain aspects of ED may lend to the discovery of a universal definition, other aspects may be found to vary across contexts and thus be more appropriate for developing a comprehensive understanding of specific situations.

Research Problem

This study intends to study energy communities as potential examples of how energy democracy may be playing out. The desire behind this research is to use empirical findings to contribute materiality to the academic definition of energy democracy. The goals are therefore threefold; firstly, to determine which theorised characteristics of energy democracy are observable in energy communities, secondly to use these findings to comment on existing definitions in literature, and thirdly to use a comparison of two geographical contexts to inform the continued process of searching for a definition of energy democracy.

The study therefore intends to address the question:

What characteristics of energy democracy are being demonstrated by Dutch and Irish energy communities?

This research question will be served by the following sub-questions:

- How can energy democracy be defined in terms of how it could be demonstrated by energy communities?
- What aspects (of this definition) of energy democracy are observable in Dutch and Irish energy communities?
- How do these observations compare/contribute to a general theoretical understanding of energy democracy?
- What can a comparison of energy democracy between two geographical contexts say about the context dependency of energy democracy?

Structure of thesis

The structure of this paper is as follows. The next section presents the theoretical framework where key concepts of ED and EC will be presented in more detail. Findings in literature will be used to support the interpretations of these concepts and the relations between them. Finally, the section will briefly address the expectations that are implied by current understandings in literature. In section 3, the research methodology will be described and explained.

Section 4 will present and analyse the results of the research, followed by section 5 which will discuss them. Section 7 will reflect on the research, and section 8 offers concluding remarks.

II. Theoretical Framework

Energy Democracy is a relatively new concept and its definitions vary across academic literature (Szulecki, 2018). A study of this sort could therefore never assess a case for all the potential characteristics that may be attributed to ED, nor could it study all types of ECs. For this reason, this study will be using focused definitions of energy democracy and energy communities according to certain criteria.

Firstly, so as not to worsen the problem that this study is addressing, this study offers a definition of ED tailored to ECs; namely *community based energy democracy*. This is not to limit research on ED to the community scale, but to emphasise the community level as the essential unit of governance.

Secondly, given the importance of concepts such as prosumerism (Feldpausch-Parker et al., 2019) and decentralisation of production (Wahlund & Palm, 2022), this study considers renewable energy production as an essential quality of ECs for studying ED. For this reason, the study limits its definition of energy communities to those concerned with *community energy* (Becker & Kunze, 2014).

The above criteria were applied in the literature search for a set of characteristics which could make up an answer to the first research sub-question; *How can energy democracy be defined in terms of how it could be demonstrated by energy communities?* The outcome of this endeavour is described below.

Szulecki & Overland (2020) conceptualise ED as a process, an outcome, and a goal and describe those components as follows; *process* being the citizen collaborations and actions which form the ED movement, *outcome* being the consequent decentralisation, democratisation, and decarbonisation of energy, and *goal* which they do not specify in detail but describe as a vision that is formed and held by the relevant stakeholders. Van Veelen & van der Horst, (2018), however, enter nuance into the discussion about processes vs outcomes, proposing that democratic outcomes may just be a natural consequence of democratic procedures. Thus facilitating a view that focuses on procedures critically, and then reflects on outcomes as an afterthought. Finally, though they do not address the processes/outcomes binary directly, Burke & Stephens and Welton's policy and legal focused breakdowns of ED are also useful because they are rich in detail regarding specific processes and outcomes that may exist.

While in reality, the two components of processes and outcomes doubtlessly overlap and feed into each other - the outcomes of processes becoming processes which lead to outcomes – there is still use in these two categories. Where Szulecki & Overland's (2020), three-part model seems useful, the simplicity of van Veelen & van der Horst's (2018) two-part model is valued for its' simplicity. Bearing in mind that this study aims to focus on practical aspects of ED, rather than theoretical ones, this study takes the three-part model and merges *goals* and *outcomes*. This allows for a greater emphasis on *processes* as inspired by (van Veelen & van der Horst (2018)). To complete the model, different aspects of Burke & Stephens and Welton's breakdowns are used to populate the process and outcome categories as deemed appropriate.

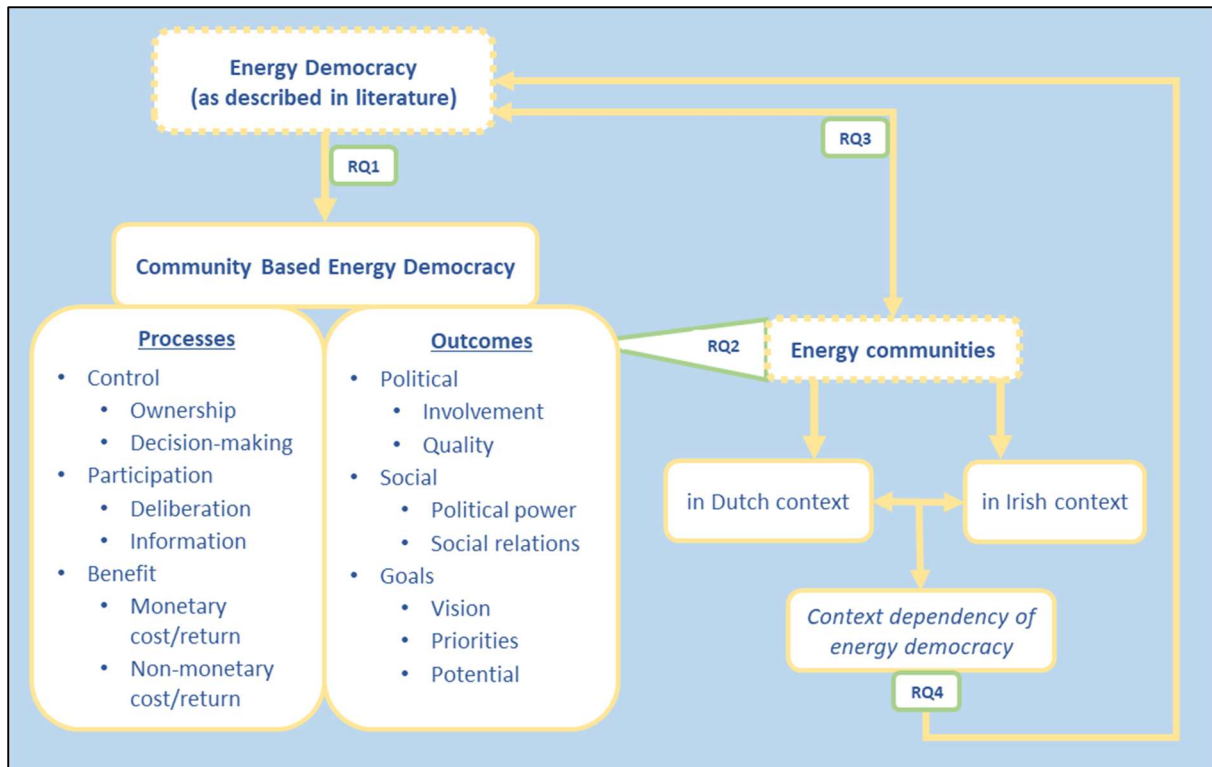


FIGURE 1: CONCEPTUAL MODEL

The model is therefore shown in Fig. 1. For each of the elements in the model, certain qualitative aspects are focused on to determine how they are contributing to a demonstration or energy democracy. For example, the degree of distribution of ownership or decision-making power, or the frequency and depth of information and deliberation that is accessible. While each element has values that mark its role in energy democracy, (e.g. distribution, frequency), *representation* and *inclusion* were taken less as values attributed to any indicator but as qualities may or may not apply in various circumstances. Here *representation* refers to whether a certain element of the EC (e.g. membership, board, meeting attendance) represents the demographic composition of the local community as a whole, and if not whether they attempt to improve representation. *Inclusion* refers to how the EC attempts to maximise overall participation and minimise any form of exclusivity.

In regards to the above, the definition of community based energy democracy (CBED) that will be used for this study is as follows; *A set of processes in which control of, participation in, and benefit from energy production are democratised, as well as a set of outcomes and goals in which energy governance involves the public, is of a higher quality, democratises the landscape of political power, establishes healthier social relations, and envisions continued decentralisation of energy related power.*

III. Methodology

Selection of data collection instrument

The essential premise underlying the research questions for this study the definition of energy democracy is not clear, and further that how energy communities are demonstrating this yet-to-be-

clarified notion is also unclear. The study therefore intends to discover relevant complexities, experiences, and understandings in order to consolidate them into meaningful findings. On this basis, a qualitative research strategy has been deemed optimal.

To best extract the expertise and perspective of individuals concerned with energy communities, semi-structured interviewing was selected as the data collection method. This decision follows the logic that respondents must be afforded flexibility with regards to topics addressed and understandings provided, while still being restrained to a structure of questioning that is based in existing findings in literature. In this way, the data collection could address the components highlighted in the conceptual model (Fig. 1) while not being limited to those components should alternate lines of questioning also seem useful for answering the research questions.

Sampling

A small number of in depth interviews may sacrifice certain degrees of breadth when discovering this topic, as opposed to large scale surveying for example. The sampling strategy of cases and respondents attempted to recover some of this breadth. As such, a variety of actors were contacted, each of whom having first-hand experience of different projects in either Ireland or the Netherlands.

Initially, the Netherlands seemed to be the most appropriate unit of analysis for this research. The generally advanced state of energy communities in the Netherlands meant that already established communities could be studied, thus avoiding projects which had not yet encountered or overcome the initial challenges to becoming democratic as is understood to occur (van Veelen & Eadson, 2020). During this outreach phase, three variables were focused on for finding a representative sample; size of cooperative, degree of urbanity, and regional location. This means that the outreach process purposefully intended to contact small, medium, and large cooperatives, urban as well as non-urban cooperatives, and Northern as well as Randstad cooperatives. The last distinction being based on the idea that the two regions could represent opposite ends of the Dutch spectrum in terms of demographic density and diversity

Following an initially slow and low response rate from Dutch cooperatives and government institutions, it was determined that the absence of a language barrier could be leveraged to acquire interviews with parties relevant to the Irish energy community movement. Eventually, between Irish and Dutch outreach processes, a sufficient number of respondents were acquired for a comparative study between Irish and Dutch energy communities. This comparative approach would also address new aspects of the energy community/energy democracy issue. Primarily, the context dependency issue could be addressed. But additionally, the issue of young energy communities struggling to be democratic from their outset could, instead of being avoided, be addressed as part of the comparative study. Here, a relatively old movement in one context is compared against a relatively young movement in another; thus offering some of the advantages of a quasi-longitudinal study.

Data collection

An interview guide was designed (Appendices) following an operationalisation of the conceptual model. However, given the variety of actors and related projects, the interviews were often adapted to the respondent, and were occasionally less-structured, particularly at the beginning of interviews when essential understandings had to be established before ED characteristics could be addressed. Being that inclusion and representation are qualities that can apply to every single aspect of ED the researcher exercised intuition in order to know when to inquire about the inclusivity/representativity of certain aspects.

Respondent #	Organisation & Role	Location
NL #1	EC - founder & board member	Northern Village - NL
NL #2	EC - board member	One of big 4 cities - NL
NL #3	EC based supplier - board member	Anon. - NL
NL #4	Municipality - Employee	One of big 4 cities - NL
IRE #1	Sustainable energy communities programme - energy mentor	Munster - Ireland
IRE #2	Various affiliations w/ EC movement - Various roles	Unknown - Ireland
IRE #3	EC based supplier - board member	Midlands - Ireland
IRE #4	Eco-village - Contributing member	Midlands - Ireland

TABLE 1: LIST OF RESPONDENTS

Ethics and data protection considerations.

Attention to ethical considerations began with (re)establishing a comprehensive understanding of the university of Groningen's code of ethics, which adheres to the Netherlands code of conduct for research integrity (CITE) and research related aspects of the EU GDPR (CITE). Both of these documents were studied and their principles and stipulations were adhered to.

Subsequently, the data collection process was reflected on in order to identify potential breaches of the principles outlined in these documents. In this process, a system for data protection and privacy was developed. This system included attributing an anonymous codes to each respondent, and ensuring that only one password protected document could be used to determine which code related to which name.

Additionally, an information sheet and consent form was drafted for each respondent to read, ask questions about, and sign prior to the interview. Following each interview, the respondent was asked in which terms and how specifically they would like to be referred to, if necessary, in the study. The template information sheet and signed consent forms are to be found in the appendices.

IV. Findings & Discussion

Control: Decision-making

In Irish cases, the decision-making structures seems to take the format of an informal technocracy or meritocracy; where those with capacity undertake a role and earn the trust of the other stakeholders.

“four of the directors that are very proactive in progressing the all the different elements of what we're about. And they are effectively given the autonomy... there are trusts given to them by the local community and local shareholders”

Irish respondent #3

Where everyday decisions are taken unilaterally, more important decisions are brought to board meetings but are scarcely discussed in detail. This process is usually due to the technical complexity of the matters at hand.

“But then there is a process of, not rubber-stamping, but it's essentially a technocratic proposal. You know, the people who have sat down and look at it, including myself make a proposal, and they say “okay” because nobody else really has the energy literacy to really understand”

Irish respondent #4

Instances in the Dutch context present with similar qualities, in which a large category of technical or daily decisions are deemed out of the remit of community-wide discussion. Nonetheless, Dutch ECs cite more opportunities to discuss certain matters such as how to reinvest annual revenue into the local area.

So in that perspective, that's the energy democracy you're looking for. It is of course a cooperative democracy and every member has one vote. So if we have, for example, 4000 euros, and you have to, ‘okay, what's the decision? How are we going to spend those 4000 euros?’ and then citizens of a neighbourhood, city, a village, a member of the cooperative, they said ‘I want to have, for example, a taxi, I want to have a taxi service for the elderly, or I want to sponsor the supermarket so it can be there. Or help the people get sustainability advice, I want to spend money on advice so that we can spend less money on energy for the house.

Dutch respondent #3

It also appears that the institutionalisation of the Dutch EC model, means that the *one person, one vote* principle is more entrenched, and thus decision by ballot is slightly more common.

“When we are not having an annual meeting, but it is a decision who has to be made by the members, we've done it twice now in two years, we do it by email.”

Dutch respondent #1

The difference in level of formalisation of open decision-making procedures is exemplified by the case of the Irish eco-village. In this case, if decisions are not being made technocratically, but rather being brought to the community at a meeting, decisions are made deliberation and consensus, not by vote. And stipulations on who has the right to contribute and who doesn't are not strict.

“But we try to make decisions by consensus. So it's not about voting. Okay. So power, isn't held by somebody be able to give their vote or not. If we're meeting if we're trying to make decisions by consensus, most of the time, if it's working well,

it doesn't really matter whether you have a right to be there or not. Or whether you're a full member, or whether you're a site owner"

Irish respondent #4

Control: Ownership

Between Irish and Dutch cases, it was broadly seemed that ownership of renewable energy producing infrastructure was the basis for any kind of participation or stake in the energy community. In most cases, ownership of a solar or wind farm is broken up into equal shares. In every instance, one vote was afforded to ownership of any number of shares of the infrastructure.

Again, however, Ireland presents with slight deviations from this model. Irish respondent #3 cited a project where every involved member bought into a share of a wind farm and had one vote accordingly. However the local energy cooperative was given two shares, seemingly done as a symbolic measure that demonstrates the primacy of the community over any given individual.

Participation

Across Irish and Dutch cases, participation seems to be limited. ECs find that the majority of the public, members or not, do not respond to calls for participation.

***Interviewer:** do members ever want to be more involved in the operations of the coop?*

***Interviewee:** No not really, I find that we are sending a lot out, there's not very much that the other way around.*

From an interview with Dutch respondent #1

Through various interviews, it was found that participation was significantly hampered by lacking knowledge or motivation.

"They would love for more people to get involved, to be honest... They have vacancies, and people aren't taking them up. And they're very open to anyone and everyone getting involved. So the scope is there for someone to be involved. The problem is that the motivation isn't. Maybe they don't know they can participate, or don't know what they could say about it, or how they could benefit. So it needs to come with an education piece"

Irish respondent #1

Throughout the coding procedure, knowledge, and it's interrelationship with motivation, participation, and sense of ability became a crucial finding. If we are to understand through van Veelen & Eadson's (2020) argument that ED is emergent, then it becomes clear how knowledge can feed-back into participation, leading to greater knowledge etc. Van Veelen & van der Horst (2018) cite a definition of democracy as "*the procedure for capturing the views of citizens and translating them into outcomes*". Thus, a lack of view on behalf of an uninformed population will inhibit the

flourishing of genuine democracy. This notion is supported by the eco-village member in expression his own dismay at the lack of participation in energy governance within the eco-village;

“Democracy is not easy. All forms of democracy demand an educated and thinking population. And so you can't have that especially when there's just nobody is educated in energy literacy. That from a technical standpoint, people don't know what a kilowatt hour is. People don't understand the laws of thermodynamics. People don't understand the difference between plugging in a kettle versus plugging in their iPhone”

Irish respondent #4

It would seem, from these Irish quotes then, that a critical mass of knowledge is required for the emergent process of democracy to commence. However, Dutch cases showed that a response to a lack of knowledge was distinctly different, as it was accompanied by a general sense of capability.

I immediately noticed, there were a lot of people who were very interested and enthusiastic, but they have no idea how to start a project. And that's my job (starting projects). So I said, I'm interested to help you. And not only that it stays at an idea, but that it becomes from an idea to make a reality... When we didn't have the knowledge, we just bought it. For example, we didn't know how the electricity market is working. What do we have to do? What possibilities do we have? So we just asked.

Dutch respondent #1

In recognising the different reactions to lack of knowledge between Ireland and the Netherlands, there is reason to consider a contextual difference at play. In this case, a difference in cultural sense of capability to engage in development projects may be due to distinctly different histories; one in which the Netherlands has progressively institutionalised land management over centuries, and another in which Ireland as a republic has only (relatively) recently been independent or rich enough to effect complex development projects.

It may not only be the psychological effect of differing cultural contexts, however. Despite contribution from National government to encourage community energy via the SEC (sustainable energy communities) program, respondents also report significant institutional resistances to community energy. Such resistances include reluctance by grid operators to formally permit or technically facilitate community based energy contribution to the grid, bureaucratic barriers to timely planning permission, or reluctance from banks to finance entities with a cooperative structure.

And the biggest problem is to do with the distribution system operator not giving connection agreements... first you have to get a connection agreement, and then planning permission, and then you have to go to the banks and get financing. And and none of those pieces you can start until previous pieces finish. And so it takes years. And, you know, these are volunteers in a community, they can often run out of steam.

Irish respondent #2

The quote also highlights how certain institutional and bureaucratic frustration can expend personal time and energy to a degree that they limit or curtail motivation to contribute. The role of scarcity time and personal energy resources is something that was drastically less present from Dutch interviews.

There is clearly value in the term Community Based Energy Democracy for describing the type of energy democracy that can be demonstrated by energy communities. But this study's findings show that many aspects are in need of further exploration. While certain characteristics such as control, participation, benefit and goals may seem essential to the CBED model, there is a wealth of other characteristics which require further research to determine how they may contribute to a CBED model.

In terms of how energy communities interact with broader society; engagement regulators (e.g. knowledge, sense of capacity), integration, and institutional considerations are necessary. Firstly, in terms of engagement from the public, it is unclear whether a lack of engagement at the initial stages of a project is a natural and acceptable starting point for a democratic process to begin, or whether it is a problematic lack of democracy at the early stages when democratic engagement is crucially important. This therefore begs the question of how democratic engagement can be maximised early on, and answering this may involve exploring a complexity of potentially self-reinforcing determining factors for engagement by the public. These factors are namely; knowledge resources, motivation, sense of possibility, and personal time/energy resources. This study has also observed that these factors are possibly determined by contextual factors such as culture and history, but this is speculation which could also form the basis for further research.

Integration may be another variable quality of CBED. Contextual factors such as political culture and level of urbanity may also influence integration within existing governance structures, within the local community, or within the given landscape. This variance in institutional or physical integration may determine what forms of energy democracy come to fruition. It was noticed between the Irish and Dutch context that integration into existing local governance structures (such as energy community via community council in Ireland) may play a role in formalising the governance of the EC and thereby better ensure inclusion and representation, where relative independence of Dutch ECs may lead to informal governance systems which could be more exclusive.

Comparison between Dutch rural and Dutch urban examples also show that demographic differences such as cultural homogeneity between the urban and rural may demand different approaches to inclusion and representation within the energy community. Differences in level of urbanity also pose different challenges regarding acquisition of space for production and therefore necessitate different forms of integration into the community. Where rural communities generally endeavour to use open land, and therefore seek financial resources from the broader community in order to purchase it; urban communities would more likely use roof space, and might therefore not look to buy land, but rather cooperate with institutional actors such as government or schools to borrow the roof space. These different approaches imply potential differences in inclusion and representation; where the need for financial resources in starting up a project may mean the inclusion of wealthy actors as a priority, the need for compliance from institutional actors such as public offices or schools may, again, better support principles of inclusion and representation.

Finally, institutional resistance against community energy production was also shown to be relevant in the Irish context. Irish respondents report that, despite assistance from national government via the SEC (sustainable energy communities) program, this scarcely translates to community energy production do to institutional resistances. Such resistances include reluctance by grid operators to formally permit or technically facilitate community based energy contribution to the grid, bureaucratic barriers to timely planning permission, reluctance from banks to finance entities with a cooperative structure, and prioritisation of commercial projects by national government and particularly the grid operator. Someone working for a community energy based supplier stated;

“We've been waiting almost two years for ESP networks (the Irish district systems operator) to come on site and do the grid works. They have their own kind of work plan agenda. They're more interested in a 100 megawatt wind farm than the five megawatt solar farm. We've been pushed down the list and it's hugely frustrating.”

Irish respondent #3

In contrast, this institutional resistance was not cited by Dutch respondents, thus making institutional frameworks an important element in the context dependency discussion. Another aspect of the context dependency discussion is how, with a comparative lack of institutionalised model of energy community in Ireland, respondents generally do not cite prescriptive attitudes to how energy communities can run themselves. In this case, and at this early stage in the energy community movement, Irish respondents prioritise the autonomy of energy communities over specific stipulations about what form an EC should take to be democratic. Irish respondent #3 agreed with the sentiment that resisting the hegemonic system took primacy over the prescription of a better system, supporting the *'Resist, reclaim, restructure'* theorisation by (Burke & Stephens, 2017).

This observation may be an example of how this study is serving as a quasi-longitudinal study by observing EC movements at different stages. However, the contextual differences have been found to be significant, and therefore largely discount these types of theorisations.

The relative youth of this movement also means that certain fledgling characteristics should be watched for how they develop. These include multi-scalar CBED and energy self-sufficiency. In the former, Dutch examples show that CBED may still include a centralisation of certain governance functions such as inter-community coordination, power-wielding, and knowledge/resource sharing. This presents a view in which CBED is not restricted to community governance but is designed for communities to be the bases for essential characteristics such as control, participation, benefit. In the latter, self-supply and self-sufficiency were frequently cited as desired end-goals for community energy, where community based production for sale to the grid was merely due to technical or institutional limitations on self-supply. Reflecting on (Szulecki, 2018), the future of the self-supply issue may eventually come to significantly determine what a 'prosumer' actually is, and how 'prosumerism' forms an essential part of ED. Prosumerism in CBED may just be a closer relation between the production scale and consumption scale, not an individual producing consumer. In this respect, prosumerism is not optimally attributable to households, rather it is attributable to situations in which there is a simultaneity of production and consumption by a certain entity or at a certain scale. In this regard, CBED could allow energy communities to be the 'prosumers'; where

energy is both produced (via community controlled generation) and consumed as a community (via district heating, , electrified public/shared transport etc.)

V. Reflections

Due to intermittent work ethic by the researcher throughout the early and middle stages of the research process, the final submission is effectively a rough first draft, particularly regarding section IV onwards.

VI. Conclusion

The determined a model which predicted characteristics of CBED with decent success. However, the research also found new characteristics which may demand a total review of the model. The newly found characteristics were seen to be heavily context responsive, thus explaining previous fragmentation in research; much of the definition may context dependent. Nonetheless the basis and ideal roadmap for a definition of CBED now exists. It also remains to be seen how CBED is destined to contribute to an understanding of energy democracy as a whole; whether CBED is in fact the ideal form of energy democracy or whether it is just one of many equally useful types.

VII. Referencing

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Appendix A: Interview Guide

Appendix B: Transcripts

Appendix C: Information Sheet + Informed Consent Forms

INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Gregg Allen

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date

Signature



To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date

16.06.2023

Signature



INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Jaap Weerdmeester

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
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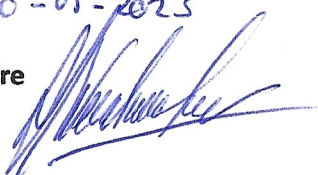
Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date 16-05-2023

Signature



To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date 16.06.2023

Signature



INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Olivier de Greef

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date

0-5-2023

Signature



To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date

16.06.2023

Signature



INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Rosanne Koning

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date : June 4th 2023

Signature



To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date

Signature



INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Seán Sweeney

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

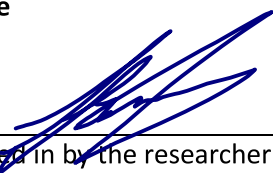
Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes ~~no~~

Date 08/05/2023

Signature



To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date 16.06.2023

Signature



INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Bruce Warren

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date 12.6.23

Signature

To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date 16.06.2023

Signature

INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Elaine Baker

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date

2nd June 2023

Signature



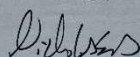
To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date

16.06.2023

Signature



INFORMED CONSENT FORM

Title study: (Preliminary title) Realising Energy Democracy: Observing Energy Democracy in Dutch and Irish Energy Communities

Name participant: Robert Mulder

Assessment

- I have read the information sheet and was able to ask any additional question to the researcher.
- I understand I may ask questions about the study at any time.
- I understand I have the right to withdraw from the study at any time without giving a reason.
- I understand that at any time I can refuse to answer any question without any consequences.
- I understand that I will not benefit directly from participating in this research.

Confidentiality and Data Use

- I understand that none of my individual information will be disclosed to anyone outside the study team and my name will not be published.
- I understand that the information provided will be used only for this research and publications directly related to this research project.
- I understand that data (consent forms and interview transcripts) will be retained on the Y-drive of the University of Groningen server for 5 years, in correspondence with the university GDPR legislation.

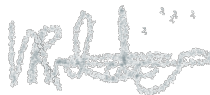
Future involvement

- I wish to receive a copy of the scientific output of the project.
- I consent to be re-contacted for participating in future studies.

Having read and understood all the above, I agree to participate in the research study: yes / no

Date 05-05-2023

Signature



To be filled in by the researcher

- I declare that I have thoroughly informed the research participant about the research study and answered any remaining questions to the best of my knowledge.
- I agree that this person participates in the research study.

Date

16.06.2023

Signature

